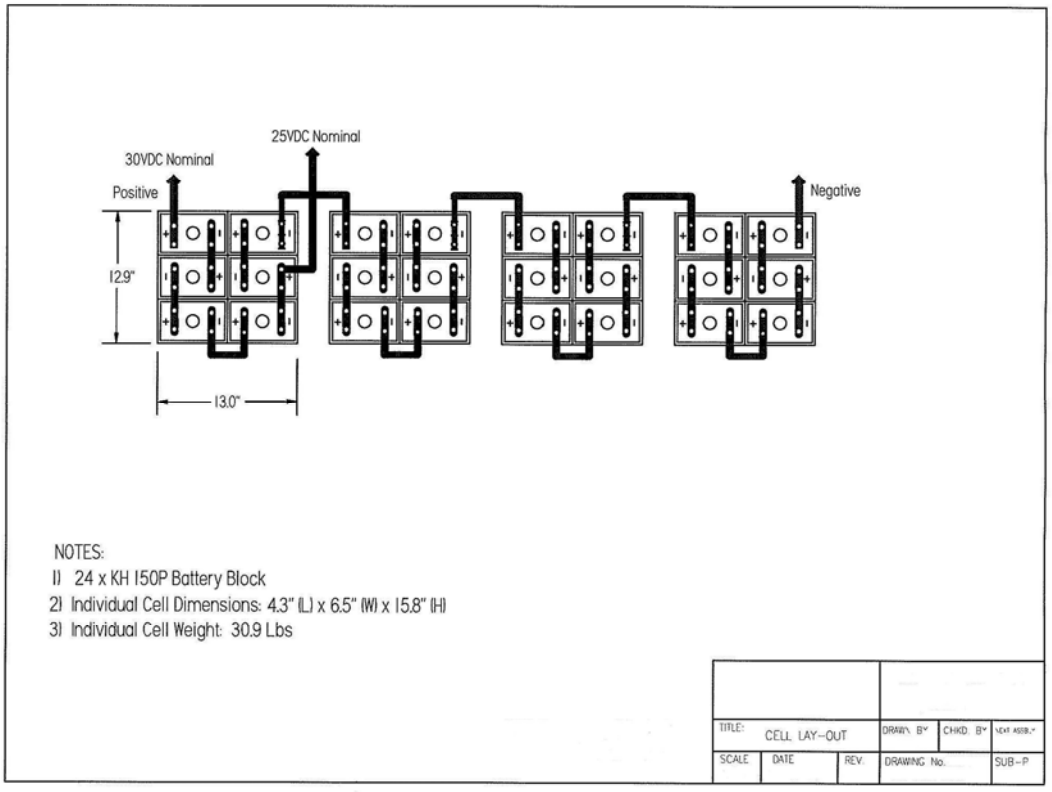
BACK-UP BATTERY SPECIFICATION

1. High-rate Pocket Plate 157 Amp-hour Cell. Suggestion for assembly of 157 Amp-hour cell for a standard 19" rack shelf assembly: four (4) sets of six (6) 157 Amp-hour cells as shown in figure below (preferred) or three (3) sets of eight (8) 157 Amp-hour cells.



2. Rechargeable Battery Chemistry
   - Nickel Cadmium (NiCd)

3. Charging
   - The Cells hall be of a high discharge and charging rate.
   - Two level continuous parallel charging:
     i. Float Level: -1.40±0.01Vdc/cell
     ii. High Level: -1.45-1.70Vdc/cell

4. Operating voltage
   - 24 Cells, 1.25 VDC per cell (nominal)
   - Fully-charged cell voltage of approximately 1.50 VDC per cell.

5. Performance capability range of 157 ampere hours for 30 minutes or 18 ampere hours for 8 hours, final cell voltage of 1.14 volts per cell.

6. Electrolyte
   - Cells shall be delivered filled and charged
   - The cells shall have an electrolyte solution of potassium hydroxide and a small amount of lithium hydroxide which acts only as an ion transfer medium, delivering optimum performance without causing base material degradation. Liquid electrolyte is required. NASA KSC has appropriate facilities for these procedures.

7. Ventilation
   - The block battery shall be fitted with flame arresting flip top vents and shall be able to eliminate corrosive vapors.

8. Intercell connectors and battery hardware shall be included.